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## South Dakota Agricultural Trucking and Highways

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# Economics Newsletter



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South Dakota Agricultural  
Trucking and Highwaysby Charles E. Lamberton  
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Recent changes in laws, the rail situation, and highway funding needs will affect South Dakota agricultural trucking in the 1980's.

## Deregulation

The Motor Carrier Act of 1980 made entry into the regulated trucking sector easier. It also included changes to reduce circuitous routings and empty backhauls. To reduce empty backhauls, the list of exempt commodities (those which are not subject to entry or rate restrictions) was expanded. Historically, only unprocessed agricultural commodities such as grain have been considered exempt. Now trucks carrying grain to market can carry such products as fertilizer, seed, and soil conditioners on their backhaul. The reduction in empty backhauls will increase truck revenues and reduce costs to shippers.

The Act also allows truckers of exempt commodities to contract with shippers of certain non-exempt commodities such as processed food products. For example, now a truck delivering grain to Minneapolis can return loaded with grocery products to reduce empty backhauls and costs to shippers. The share of traffic which a cooperative can carry for non-members has also been increased from 15 to 25 percent. This will provide additional revenue for cooperatives and encourage more cooperative trucking.

These changes are not expected, however, to have a great impact upon

agricultural shippers or truckers. They reflect the belief that trucking is fundamentally a competitive industry which can be regulated by market forces.

Opponents of trucking deregulation have argued that small towns and rural areas will not be served by trucking companies if such service is no longer required by regulation. They contend that small town service is often unprofitable and that, if allowed, trucking firms will abandon such markets to concentrate on the profitable markets in urban areas. Proponents of deregulation argue that if there is freight to be moved to or from a small town, someone will be willing to provide the service. The service may cost more per ton mile and service quality may be reduced, but these changes would more closely reflect the true economic costs of providing such service. Rural residents would pay such costs without any cross-subsidization from urban markets. Proponents also claim that by removing restrictive regulations, truckers serving rural areas would have motivation to increase their efficiency by using equipment, labor, and schedules more appropriate to the needs of the rural market, thereby holding down trucking costs.

## Rail Restructuring

As indicated in Newsletter Nos. 162 and 163, the restructuring of the national and state rail systems and the international grain handling system are taking place in response to the economies of scale made possible by technological progress and recent changes in laws and regulations. A system continues to evolve in which large grain terminals draw from broad producing regions and ship in unit train lots to port terminals. Consequently, an increasing share of grain trucking will occur on a regional basis and over local roads.

This change may benefit truckers by providing a more consistent flow of local traffic. Truckers may spend less time waiting to unload at the Mississippi River and Great Lakes terminals and enjoy more nights at home. The shift will also place a relatively greater burden on state primary and secondary roads.

### Highway Funding

Of perhaps greater significance to agriculture is the growing problem of increasingly costly highway maintenance and construction. The South Dakota Department of Transportation (SDDOT) construction cost index increased 190 percent between 1970 and 1980. Maintenance costs increased from approximately \$1000 per mile in 1970 to over \$2000 per mile in 1978. Bridges on state highways are deteriorating rapidly with many structurally deficient and/or obsolete. SDDOT has estimated that it would cost \$140 million to repair and replace deficient bridges at 1978 costs.

Much of the state's primary highway system is reaching the limit of its design life. Traffic levels and vehicle weights have increased beyond those for which these highways were constructed, thereby accelerating deterioration in both roadbeds and road-surfaces. Many of the lighter roadways in the secondary system, which with the restructuring of the state's rail and grain handling system will be relied upon to carry an even greater burden than in the past, face the same problems.

DOT expenditures reflect these impacts. Between 1980 and 1982, budgeted expenditures for construction are expected to decrease from \$91.3 million to \$77.8 million, whereas for reconstruction and maintenance they are expected to increase from \$36.7 million to \$61.7 million.

Revenues to build and maintain highways are derived from both state and federal taxes. The principal state taxes are the motor fuels tax and motor vehicle registration fees. The principal federal tax is a motor fuels tax.

Although the fuel tax in South Dakota was increased by 71 percent from 7¢ per gallon in 1970 to 12¢ in 1980, gasoline usage declined nearly 10 percent in the period. The resulting increase in the net fuel tax revenue of 98 percent from \$20.7 million in 1970 to \$40.9 million in 1980 failed to keep pace with the earlier-mentioned cost increase.

The gallonage tax rate is tied only indirectly to highway costs through public demand for highways and the political process. In inflationary periods people resist price increases, and the prices easiest to restrain are often those politically determined such as the motor fuel tax. The use of gasoline has been restrained during the 1970's by a 240 percent increase in prices between 1970 and 1980. Federally mandated improvements in fuel efficiency along with rising fuel prices may limit future fuel sales and tax revenues. Since part of highway maintenance is unrelated to traffic but must be done regardless of road-use, motor fuel tax receipts will probably fail to keep pace with these maintenance needs.

Motor vehicle registration renewal fees in South Dakota increased from \$8.5 million in 1970 to \$13.7 million in 1980 or 61 percent. The failure of this source to keep up with costs also reflects the setting of fees through the political process. Initial vehicle registration revenues increased 136 percent from \$4.7 million in 1970 to \$11.1 million in 1980. This revenue source responds to the price and quantity of new vehicle sales. Its growth kept pace with highway costs until the decline in vehicle sales in 1980. In summary, total state revenues for highways increased from \$34.8 million to \$69.3 million or 99 percent between 1970 and 1980.

The principle source of federal aid for state highways is the federal gasoline tax which has remained at 4¢ per gallon since 1959. State and local governments receive federal funds under programs for interstate, primary, secondary, and urban highways, roads, and

streets. A growing proportion of federal funds is earmarked for specific purposes rather than general highway, road, and street construction and improvement. For example, federal funds are provided to eliminate hazards and obstacles, replace bridges, and improve highway safety. Total federal funds available to South Dakota were \$33.8 million in 1970 and \$61.6 million in 1980. This represents an increase of 82 percent. Of the 1970 funds, \$3.4 million or about 10 percent were for county and city use. By 1978, the county-city portion grew to about 16 percent of the total federal funds. As a consequence of such earmarking, federal aid available for state roads increased only 40 percent from \$30.4 million in 1970 to \$42.5 million in 1980.

Combined state and federal aid funds available for state roads increased from \$65.3 million to \$111.8 million between 1970 and 1980. This 71 percent increase in funding was far short of the 190 percent increase in the construction cost index. SDDOT has estimated that catching up with the backlog of postponed work would cost over \$330 million at 1980 costs.

Several states have modified or replaced their gallonage-based motor fuel tax with an ad valorem tax, based upon the dollar value of fuels purchased. With an ad valorem tax, if fuel prices continue to increase, tax revenues and funds available for highway maintenance will grow even if fuel usage does not increase.

The motor fuel tax has been designated through legislation for highway use. This reflects the philosophy that those who benefit from highways should pay the taxes necessary to cover highway costs. Those who use highways the most usually purchase the largest quantity of fuel and, therefore, pay the most to support highways under the present gallonage tax. This relationship would be broken if an ad valorem tax is adopted. The costs of constructing and maintaining highways do not necessarily bear a direct relationship to the price of fuel. If fuel prices change rapidly, the DOT could find it has a surplus or shortage unrelated to costs. To avoid

this, an ad valorem tax could be structured annually by the Legislature to provide only those funds which the Legislature deems necessary for the next year's highway budget. This approach, however, is virtually the same as the present system with a gallonage tax reviewed each year and changed periodically to provide necessary highway funding.

In January 1981, the U.S. Department of Transportation made several recommendations to deal with the problems of growing highway costs and the appropriate allocation of the costs among users. According to one recommendation, the federal motor fuel tax would increase from 4 to 6 cents per gallon. Other recommendations involve shifting a larger share of the tax burden to heavy trucks, increasing the excise tax on truck parts and accessories from eight percent to fifteen percent, and raising the tax on new trucks and trailers exceeding thirteen (rather than five) tons in gross weight from ten to fifteen percent. The Federal Highway Use Tax on heavy trucks would also be raised, for example, from \$240 to \$1296 on a 40 ton truck. If such a restructuring of federal taxes is enacted, the cost of trucking South Dakota agricultural products long distances in heavy vehicles will increase substantially.

### Conclusion

South Dakota agriculture, as for more than a century, will continue to face transportation problems in the 1980's. In some ways, the new problems resemble those of a century ago - how to have rail service in the state, how to deal with railroad monopoly power, and how to provide an adequate system of farm to market and interstate highways. While the problems may be familiar, finding resolutions to them is not an easy task. To the extent that effective solutions can be determined South Dakota agriculture can expect to derive significant benefits. Maintaining a highway system capable of delivering farm products and supplies in large efficient truckload lots, for example, will minimize trucking costs and con-

tribute to net producer income. Retaining a rail system with reasonable rates and access to distant markets will also raise farm income. The growth of Asian grain markets and the Pacific Northwest ports places South Dakota in a position of relative advantage over other Midwestern grain producing states. If good rail access to the ports is available and grain can be collected at South Dakota subterminals over an efficient highway system, South Dakota agriculture can look forward to more prosperous years during the rest of this twentieth century. Transportation decisions taken in the early 1980's are, therefore, of long term importance for South Dakota.

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